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FIND LATHE INADEQUATE; MOSCOW, LENINGRAD PLANTS BUILD NEW MACHINE TOOLS

POINT OUT DEFICIENCIES IN MODEL 1730 SEMIAUTOMATIC LATHE -- Moscow, Stanki i Instrument, Oct 50

The Model 1730 multicutter semiautomatic lathe put out by the Moscow Krasnyy Proletariy Plant in 1945 has been disseminated extensively among plants in the Soviet Union engaged in large series and mass production.

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A number of shortcomings have appeared in machine tools of this type in the course of their operation.

1. Manual control of the machine is almost impossible, a situation which is aggravated by the fact that the automatic control mechanism often goes out of order. For this reason, a considerable number of Model 1730 machines stand idle. The principal reasons why the automatic control mechanism gets out of order are the unreliable operation of the trip dogs and frequent breakage of parts. The latter can be explained by the eccentricity of the axis of the bore under the motor flange, and of the axis of the shafts of the electric motor and feed boxes. The installation of a flexible clutch between these two shafts would eliminate such a defect.

2. The machine's operating speed is limited by its lack of adequate rigidity. The highest speed attained in machining rings made of ShKh15 steel ranged from 75 to 85 meters per minute, whereas a cutting speed of 125-140 meters per minute was achieved in machining the same part on the MR-5 multicutter triple-slide semiautomatic.

3. The machine tool's weak spot is the spindle bearings, which limit the utilization of its top speed potentials, especially when it is tooled with broad cutters.

Schematic drawings of this machine are available in the original document.

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PRODUCES 20 TYPES OF MACHINE TOOLS -- Moscow, V Pomoshch' Profsoyuznomu Aktivu, Nov 51

At present, the Moscow Krasnyy Proletariy Machine Tool Building Plant is producing more than 20 types of different machine tools. In 1951 alone, it put out 12 models of new machine tools.

DOUBLES 1946 PRODUCTION -- Moscow, Pravda, 16 Nov 51

In recent years, the Moscow Krasnyy Proletariy Plant has mastered the production of more than 70 new types of machine tools. In addition, the production of heavy machine tools has been doubled.

To produce first-class machines by using most modern methods has been the motto of plant personnel. On this basis, the plant doubled its production in 1951 as compared with 1946. The average increase in labor productivity at the plant in this period was 203 percent.

In October, production was 12 percent greater than in January. This was achieved by increasing labor productivity only; the number of workers in the shops was not increased. The average output per worker in 10 months of 1951 increased 18 percent.

It must be emphasized that very little new equipment has been added to the machine-tool park since 1948. The problem of raising the productivity of equipment was solved by utilizing the reserves of available techniques. Serious work was done at the shops on modernizing the existing machine-tool park. Practice has shown that comparatively little modernization of separate machine tool components, and the finishing of new attachments frequently make it possible for the machine tools to surpass its planned capacity to a great extent.

However, this is only one side of the story. Exclusive attention is given to training highly skilled, technically informed and educated personnel who can get everything out of the equipment that it can give.

At present, there is not one worker or engineering-technical staff member who is not studying a new technique.

Increasing labor productivity is closely connected with the improvement of production organization. In this respect, there are a number of serious shortcomings at the plant. All shops have not yet achieved rhythm in their operation. Clear organization of production, elimination of all last-minute speedups, and improvement of qualitative indexes are tasks which cannot be postponed.

The period for planning and mastering the production of new types of machines must be shortened. Measures must be taken to save metal. In particular, the weight of machine tools must be decreased together with an increase in their power. Plant technologists and designers are now working on this problem.

STRIVE FOR GREATER LABOR PRODUCTIVITY -- Moscow, Moskovskaya Pravda, 2 Nov 51

In 6 months, the Moscow Krasnyy Proletariy Plant will celebrate its 100th birthday. In the period of Soviet rule, it has grown from a primitive workshop producing scythes, saw frames, and small motors into one of the leading plants in Soviet machine building, equipped with modern high-duty equipment.

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It now has 26 Stakhanovite shops. Mass introduction of high-speed methods of metalworking has more than doubled labor productivity and improved the quality of products put out.

The plant's designers are now faced with a new and complex assignment, to develop a machine which will permit high-speed workers to achieve considerably greater labor productivity. An intermediate stage in this assignment has been mastering production of 1-A-64-S machine tools. By increasing their power, the spindle speed was brought to 2,000 revolutions per minute.

COMPLETE PLANS FOR NEW MACHINE TOOLS -- Kiev, Pravda Ukrainy, 20 Oct 51

The planning of a high-duty two-spindle machine tool for machining ball bearing races has been successfully completed at the Moscow Krasnyy Proletariy Plant. It will operate automatically. A new drilling machine has also been designed.

Denisov and Yegorov, designers, have developed and introduced into production an attachment for continuous milling. It permits the installation of a part on a milling machine without stopping its operation. The productivity of the machine tool increases three or four times.

MANUFACTURE NEW MACHINE TOOLS -- Moscow, Vechernyaya Moskva, 29 Dec 51

In 1951, the Moscow Krasnyy Proletariy Plant successfully developed and manufactured precision machine tools. They are designed for threading lead screws used in modern machine tools and instruments. Precision machine tools assure the threading of screws to an accuracy of one micron.

Of special interest is an automatic for machining carbon electrodes. It increases the labor productivity of one worker five or six times.

A lathe for machining crankshafts has also been manufactured.

ORGANIZE PRODUCTION OF NEW MACHINE TOOLS -- Moscow, Izvestiya, 25 Dec 51

The Leningrad Machine Tool Building Plant imeni Il'ich has mastered the production of five new types of machine tools. Two types of improved automatics for the ball bearing industry differ considerably in design from existing machines, and they are more productive.

A new unique optical-profiling-grinding machine designed for grinding complex profiles of templets and cutters has been developed at the plant. In operation, it excels similar foreign models.

In 1951, the production of 11 new types of heavy high-speed boring machines and two new types of improved milling machines was organized at the Leningrad Plant imeni Sverdlov.

GIVE PLANT PRODUCTION FIGURES -- Moscow, Izvestiya, 23 Nov 51

In 1950, the Leningrad Automatics Plant produced, in monetary terms, five times as many automatic machine tools as in 1946. In addition, the number of types of machine tools increased six times. The 1940 level of production was increased nine times, while the number of workers became only 1½ times greater. Labor productivity increased almost six times in 1951 as compared with 1946.

Whereas in the first years of the postwar Five-Year Plan, labor consumption for the Model 112 automatic lathe totaled 1,650 norm hours, in 1951, the figure was only 750. The production cost of the machine was cut in half. At the same time, increasingly better models of machine tools were perfected, which mechanize the production processes and ease the labor of workers at plants of the electrical, agricultural machine building, and automobile and tractor industries.

The plant has been perfecting five to eight new types of automatics a year.

Leningradskaya Pravda, 29 Dec 51

The Leningrad Automatics Plant completed its 1951 plan for gross production on 21 December. It increased its labor productivity 27 percent and decreased the cost of producing machine tools 20 percent as compared with 1950.

In 1951, the plant perfected six new types of automatics. A particularly interesting innovation in technique is the Model 1-A-136 automatic turret lathe. Very original in its design, it automatically uses the most suitable cuttting speeds. Series production of these machine tools has just been mastered.

The introduction of precision casting of complex and heavy parts that go into the manufacture of automatics has practically eliminated the need for additional machining.

In 1952, the plant must perfect 16 new models of machine tools.

Moscow, Pravda, 29 Dec 51

In 1952, the Leningrad Automatics Plant must master the production of 14 new types of automatics.

Yerevan, Kommunist, 8 Jan 52

The Leningrad Automatics Plant has mastered the series production of new automatic turret lathes for boring complex parts. All units of the machine are electrified.

In contradistinction to machine tools of earlier designs, the new automatic has a setting scale which permits the selection of the most suitable speed for each type of cutting tool. The number of revolutions has been increased 25 percent, making the automatic a high-speed cutting machine tool.

Labor consumption for the manufacture of the machine tool has been decreased 30 percent as compared with earlier models.

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